

# **CenterPoint Energy- CNG Fleet Transition**

Texas Railroad Commission Workshop

Longview, Texas

March 12, 2014

## CenterPoint Energy Current Fleet Status

State	Currently in Fleet	Ordered for 2014	Total Vehicles
Arkansas	9	8	17
Louisiana	14	5	19
Minnesota	23	-	23
Mississippi	1	-	1
Oklahoma	12	4	16
Texas	28	27	55

- CenterPoint has 87 NGV's on its fleet spread throughout its various jurisdictions, and has ordered 44 in 2014. Conversions are underway in all of its operating states.
- 85 of the vehicles are bi-fuel, running on either CNG or gasoline. 2 dedicated CNG Honda Civics in Minnesota
- There have been little or no operating issues with the vehicles.

- Miles Driven & MPG
- Fuel Cost- Stability
- MPG
- Conversion Costs
- Vehicle Use Considerations
- NGV Available
- Safety

## Annual Fuel Savings Estimator

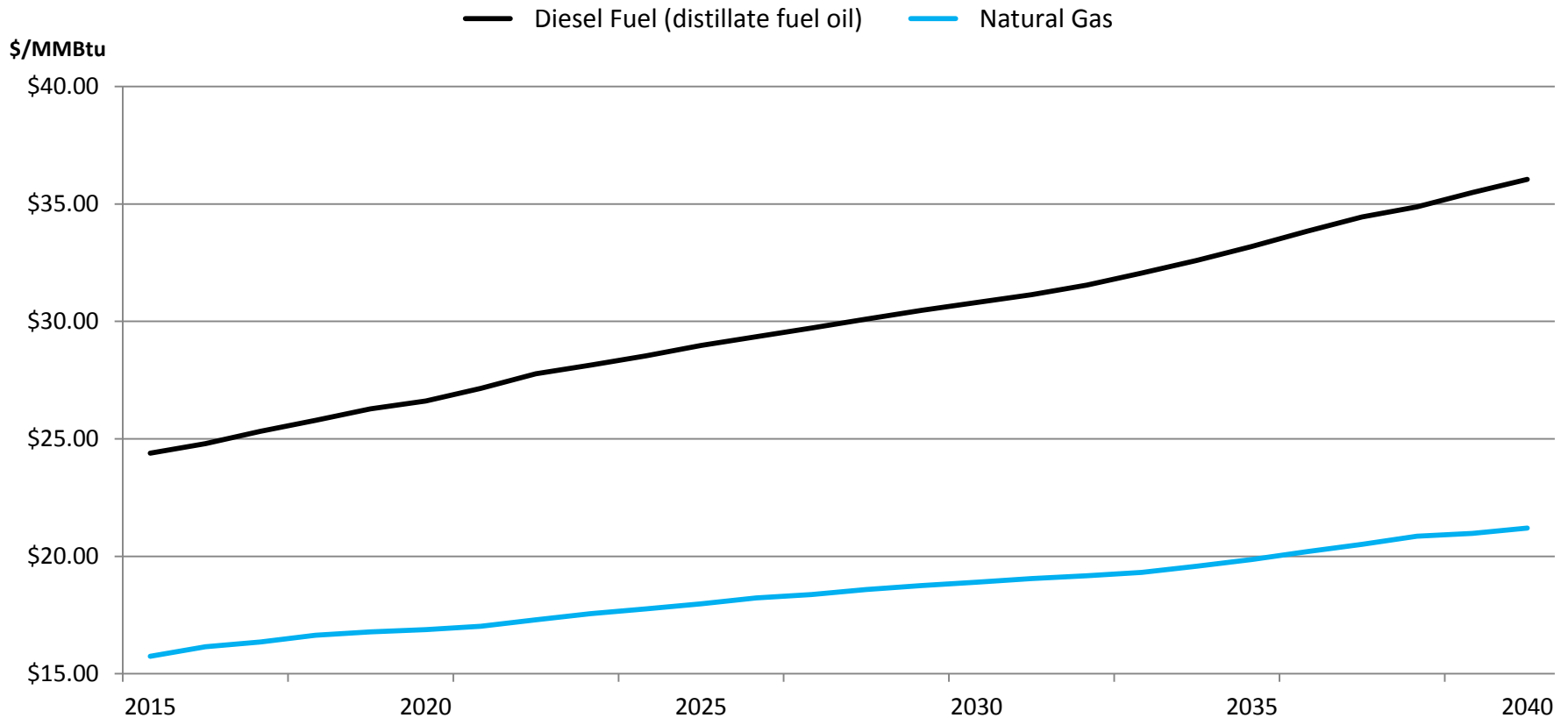
Miles per DGE MPG	25,000 Miles	50,000 Miles	75,000 Miles	100,000 Miles	125,000 Miles	150,000 Miles	175,000 Miles	200,000 Miles
4.0	6,250	12,500	18,750	25,000	31,250	37,500	43,750	50,000
5.0	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000
6.0	4,167	8,333	12,500	16,667	20,833	25,000	29,167	33,333
7.0	3,571	7,143	10,714	14,286	17,857	21,429	25,000	28,571

**Annual Fuel Savings** (values in dollars per year per truck) (E.G. \$1.50/DGE savings at 5 MPG=\$ .30/mi driven)

Fuel Price Diff \$DGE	5,000 Gallons	10,000 Gallons	15,000 Gallons	20,000 Gallons	25,000 Gallons	30,000 Gallons	35,000 Gallons	40,000 Gallons	45,000 Gallons
\$ 1.00	\$ 5,000	\$ 10,000	\$ 15,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 35,000	\$ 40,000	\$ 45,000
\$ 1.25	\$ 6,250	\$ 12,500	\$ 18,750	\$ 25,000	\$ 31,250	\$ 37,500	\$ 43,750	\$ 50,000	\$ 56,250
\$ 1.50	\$ 7,500	\$ 15,000	\$ 22,500	\$ 30,000	\$ 37,500	\$ 45,000	\$ 52,500	\$ 60,000	\$ 67,500
\$ 1.75	\$ 8,750	\$ 17,500	\$ 26,250	\$ 35,000	\$ 43,750	\$ 52,500	\$ 61,250	\$ 70,000	\$ 78,750
\$ 2.00	\$ 10,000	\$ 20,000	\$ 30,000	\$ 40,000	\$ 50,000	\$ 60,000	\$ 70,000	\$ 80,000	\$ 90,000
\$ 2.50	\$ 12,500	\$ 25,000	\$ 37,500	\$ 50,000	\$ 62,500	\$ 75,000	\$ 87,500	\$ 100,000	\$ 112,500

- Miles Driven & MPG
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## Stability-Long Term Price Outlook



Source EIA

Diesel fuel for on-road use. Includes Federal and State taxes while excluding county and local taxes.

Natural gas used as a vehicle fuel. Includes estimated motor vehicle fuel taxes and estimated dispensing costs or charges.

## Price Stability

Price of Natural Gas per Dth	Gas Commodity Cost DGE Note 1	Delivery Cost DGE Note 2	Electricity Cost DGE Note 3	Compressor Maintenance Cost DGE Note 4	Capital Amortization Cost DGE Note 5	Federal & State Fuel Tax Cost DGE Note 6	Total DGE
\$3.00	\$0.417	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$2.1893
\$4.00	\$0.556	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$2.3283
\$ 5.00	\$0.695	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$2.4673
\$ 6.00	\$0.834	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$2.6063
\$ 7.50	\$1.042	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$2.8143
\$ 10.00	\$1.390	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$3.1623
\$12.50	\$1.737	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$3.5093
\$15.00	\$2.085	\$0.3183	\$0.13	\$0.30	\$0.50	\$0.524	\$3.8573

1. Price of natural gas/ 7.194
2. Delivery Charge of \$2.29 per Dth / 7.194, including demand charge
3. Per NGV America. Includes Kwh + demand
4. Per NGV America
5. Per NGV America
6. Federal and State Excise Tax Diesel (\$0.244 Federal + \$0.28 State)

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## Conversion/Differential Costs

Sedans/ Pickups- \$9-12,000



Diesel-\$35-65,000



- Miles Driven & MPG
- Fuel Cost- Stability
- Conversion Costs
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### Vehicle Use Considerations

- How do I use the vehicle? Cargo/bed space?
- Return to base or “sleeps” at home with driver?
- Are stations near? Are stations on route?
- How is work/productivity affected?

- Miles Driven & MPG
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## Vehicle Availability



Ford Escape

Dodge Journey



## Vehicle Availability



## GMC Terrain/Chevy Equinox

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### Are NGVs Safe?

NGVs are as safe as any gasoline- or diesel-powered vehicle. With more than 11 million NGVs in use world wide, these vehicles have an excellent safety record. NGVs must meet the same safety standards as gasoline and diesel vehicles.

#### **Facts:**

- Natural gas is **lighter than air**, so it rises and dissipates when released
- High ignition temperature: **1,200 degrees** Fahrenheit (600F for gasoline)
- Limited range of air/fuel combustion ratio (**5-15%**)
- Onboard storage cylinders are manufactured to a higher standard than those made for gasoline/diesel vehicles
- Comprehensive fuel tank, vehicle and station design/mfg codes & standards
- Colorless, odorless, non-toxic substance
- Doesn't leak into groundwater
- No spills because of the dispensing nozzle



**Thank you!**

**Questions?**

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